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The Fauna of the Aegaean Island of Santorini. Part 7*) Microcoryphia and Zygentoma, with additional Records from other Greek Localities

By Luis F. Mendes, Lisboa (Portugal)

With 15 figures and 3 tables

Summary

Faunistic investigations of the Aegaean archipelago of Santorini, carried out between 1971 and 1979, and collections from some other Aegaean islands and from continental Greece yielded 3 species of Microcoryphia, family Machilidae (2 from Santorini) and 12 species of Zygentoma, families Ateluridae and Lepismatidae (10 from the Santorini archipelago). All the species collected on Santorini are new records for this archipelago. *Lepismachilis handschini, Ctenolepisma michaelseni, Ctenolepisma targionii* and *Asterolepisma crassipes* are recorded the first time in Greece. *Ctenolepisma insulicola* **nov. spec.** from Santorini and other Cyclades islands is described and compared with allied species.

Zusammenfassung

Faunistische Untersuchungen des Santorin-Archipels, durchgeführt zwischen 1971 und 1979, Aufsammlungen von einigen anderen ägäischen Inseln und vom griechischen Festland erbrachten 3 Arten der Ordnung Microcoryphia, Familie Machilidae (2 von Santorin) und 12 Arten der Ordnung Zygentoma, Familien Ateluridae und Lepismatidae (10 vom Santorin-Archipel). Alle auf Santorin gesammelte Arten sind Neunachweise für diesen Archipel. *Lepismachilis handschini, Ctenolepisma michaelseni, Ctenolepisma targionii* und *Asterolepisma crassipes* werden zum ersten Mal aus Griechenland gemeldet. *Ctenolepisma insulicola* **nov. spec.** von Santorin und anderen Kykladen-Inseln wird beschrieben und mit verwandten Arten verglichen.

1. Introduction

The „Thysanura" known at present from Greece are represented by 17 species and subspecies of Microcoryphia and 11 species of Zygentoma. Most of them are signalized only from continental Greece, a few from the Ionian island of Corfu (Kerkira), and only 8 are reported from the Aegaean islands. Among the Microcoryphia there are records of *Lepismachilis targionii* from Rhodes (Roca 1981), of *Charimachilis relicta insularis* from Crete (Janetschek 1957), and of undetermined species of *Lepismachilis*

*) Part 6: Baehr, M. (1984): Scarabaeidae (Coleoptera). – Entomol. Blätter 80: 85–90; Krefeld.

(Lepismachilis) from the islands of Dhilos and Crete (JANETSCHEK 1957). Concerning Zygentoma *Allacrotelsa kraepelini, Thermobia aegyptiaca, Ctenolepisma lineata pilifera* and *Proatelura pseudolepisma* have been signalized from Crete (WYGODZINSKY 1958), *Ctenolepisma longicaudata* from Rhodes (MENDES 1980) and *Lepidospora escherichi* from Kos and Rhodes (WYGODZINSKY 1980).

The studied specimens, described and listed in detail in the present paper (distribution on the Santorini archipelago see table 3), have been collected between 1966 and 1982 (the greater number of samples during the biological missions 1978 and 1979 to the Santorini archipelago) by Dr. H. SCHMALFUSS (Stuttgart), R. KUPPLER (now R. SCHLEGEL, Tübingen), Dr. M. SCHLEGEL (Tübingen), Dr. M. BAEHR (München), B. HOFFMANN (now Dr. B. BAEHR, München), and C. STEIDEL (Stuttgart). A detailed paper on topography, geology, climate and vegetation of the Santorini islands has been published as No. 1 of this series (SCHMALFUSS, STEIDEL & SCHLEGEL 1981). The great majority of the studied specimens is deposited in the entomological collection of the Natural History Museum Stuttgart (*SMNS* = Staatliches Museum für Naturkunde Stuttgart); some duplicates, which are gratefully acknowledged, are in the author's collection (coll. L. M.). Thanks to the courtesy of Dr. CANARD (Toulouse) some specimens, collected on the island of Naxos by Prof. MATSAKIS (Athens) could be included in this study.

Abbreviations used for collectors' names: *MB* = M. BAEHR, *BH* = B. HOFFMANN, *RK* = R. KUPPLER, *MS* = M. SCHLEGEL, *HS* = H. SCHMALFUSS, *CS* = C. STEIDEL.

2. List of the studied species

Order Microcoryphia, Family Machilidae

1. *Lepismachilis (Lepismachilis) handschini* Wygodzinsky, 1950

Santorini: Profitis Ilias, under pine-trees, in formol traps, 1 ♂ ad., 1 ♂ juv. (SMNS), leg. MB et al. April 1978.

The adult ♂, with a body length of 11.4 mm and a total length of 23.6 mm, is clearly longer than the holotype, the only other known ♂ of this species, described from Turkey. The main morphological characters agree well with those pointed out in the original description (WYGODZINSKY 1950). Some minor differences may be signalized and some details added. The sensorial field on the outer surface of the hind femur is very similar, but there are 2–3 ranges of scales that separate its apical area from the distal row of strong setae (only one row in the Turkish specimen). The metric relations found in the sensory field of the Greek specimen are as follows: LF/WF: 1.64 – 1.76, LSF/WSF: 2.35 – 2.80, LSF/LF: 0.62 – 0.68, WSF/WF: 0.39 – 0.47, d/LSF: 0.16 – 0.29, d/WSF: 0.39 – 0.80.

Abbreviations: *LF:* length of femur, *WF:* width of femur, *LSF:* length of sensorial field, *WSF:* width of sensorial field, *d:* distance between the hind border of the sensorial field and the hind border of the femur.

The relations length of stylus/length of coxite are as follows: V: 0.45 – 0.54, VIII: 0.51 – 0.58, IX: 0.68 – 0.69. The IXth coxite is provided with 2 strong spines on the outer margin and with 3 on its inner marginal distal area.

The most conspicuous difference relative to the Turkish holotype concern the length of the penis and posterior paramera: while in the Greek specimen the penis and the posterior paramera are of equal length, WYGODZINSKY (1950) reports the penis as clearly longer than the hind pair of paramera.

Lepismachilis (Lepismachilis) spp.

Santorini: Mikros Ilias, phrygana of genista *(Calicotome villosa)*; Profitis Ilias, phrygana and under trees of *Pinus brutia*; Merovigli, surroundings; 4 ♀♀, 3 juv. (SMNS), leg. MB, BH, RK, HS April 1978.

Aegaean island of Karpathos: E Pigadhia, pine forest, 2 juv. (SMNS), leg. HS 10.4.1982.
Continental Greece, Olymp Mountain: E Karia, 1 ♀ juv. (SMNS), leg. HS 2.6.1976.

All the studied specimens are juveniles, young females or mature females which allow no determination below the subgeneric rank.

2. *Silvestrichilis uncinata* Janetschek, 1957

Santorini: E Merovigli, transition between cultivated land and genista phrygana, 1 ♀ (SMNS), leg. MS 28.3.1978.

The single collected female is 10.7 mm long. The only difference in relation to the original description (Janetschek 1957) is the presence of brownish hypodermal pigment in the antennae (devoid of pigment in the holotype). The distribution of the tarsal spines (almost hyaline and inserted normally on the ventral tarsal surface) is as follows: P I: 0, 5–10, 1; P II: 0–1, 10–12, 1; P III: 1–2, 12–13, 2.

Silvestrichilis uncinata has been described from continental Greece upon specimens collected near Athens (Janetschek 1957). The specimen from Santorini is the second record of the species.

3. *Trigoniophthalmus graecanicus* Wygodzinsky, 1941

Evvia (Euböa): 45 km NW of Khalkis, lake with platan-trees, 1 ♀ (SMNS), leg. HS 20.4.1978.

The studied female agrees well with the original description of the species (Wygodzinsky 1941), the type of which has been collected in an unknown locality in continental Greece. The specimen reported here is the second record of the species.

Order Zygentoma, Family Lepismatidae

4. *Allacrotelsa kraepelini* (Escherich, 1905)

Santorini: Akrotiri, 1 ♀ (SMNS), leg. HS 27.5.1976. – Mikros Ilias, genista phrygana; Merovigli, fields; Ia, slope with volcanic ashes; Perissa, fields; Pirgos; Profitis Ilias; Cape Akrotiri, phrygana; 14 ♂♂, 19 ♀♀ (SMNS), leg. MB, BH, MS, HS April 1978. – Merovigli, 1 ♂ juv. (SMNS), leg. CS 3.10.1978. – Mikros Ilias; Perissa, fields; Cape Exomiti; Pirgos; 1 ♂, 4 ♀♀ (SMNS), leg. RK, MS, HS May 1979.
Aegaean island of Naxos: 12 specimens, leg. Matsakis, no date (coll. L.M.).
Aegaean islet of Mikro Zafrano S Astipalea: 2 ♂♂ (SMNS), leg. HS 11.9.1971.
Aegaean island of Karpathos: Lastos, 1 ♂ (SMNS), leg. HS 26.4.1966. – E Pigadhia, pine-forest, 1 ♀ (SMNS), leg. HS 10.4.1982.

Allacrotelsa kraepelini, certainly the commonest thysanuron on Santorini, has been described from Greece without detailed indication of the locus typicus (Escherich 1905 signalizes „Greece"); in the meantime it has been recorded from continental Greece near Athens and from Leonidhio/Peloponnes (Strebel, 1937), from „Attica" (Wygodzinsky 1958), from the Peloponnes (Mendes 1980) and from the island of Crete (Wygodzinsky 1958). The species is known from the northern mediterranean basin from Portugal, where it seems to be rare (Mendes 1980) to western Asia (Turkey, Irak, Syria). The studied specimens agree well with the redescription of the species (Wygodzinsky 1942). As already pointed out, there exist in the Santorini population females provided with a short ovipositor (more abundant) and females with a long ovipositor.

5. *Ctenolepisma ciliata* (Dufour, 1831)

Santorini: Mikros Ilias, phrygana, 3 ♂♂ (SMNS), leg. MS, HS April 1978. – Mikros Ilias, 1 ♂ (SMNS), leg. HS 8.5.1979.
Aegaean island of Naxos: 4 ♂♂, 1 ♀, 1 juv. (coll. L.M.), leg. MATSAKIS, no date.

The pan-mediterranean species has already been reported from Greece by ESCHERICH (1905) („Greece"), by SILVESTRI (1908) from the island of Corfu (Kerkira), by STREBEL (1937) from Leonidhio on the Peloponnes, and by WYGODZINSKY (1958) from „Attica".

6. *Ctenolepisma insulicola* **nov. spec.**

Holotype: Aegaean island of Kandeliusa (uninhabited) between the islands of Astipalea and Nisiros: ♀ (SMNS), leg. HS 16.9.1971.
Paratypes:
Kandeliusa island: 1 ♂ (allotype), 1 juv. (SMNS), leg. HS 16.9.1971.
Aegaean islet of Stakidhopula, Stakidha-group west of Karpathos: 1 ♂ (SMNS), leg. HS 14.9.1971.
Aegaean islet of West Unia, south of Astipalea: 2 ♀♀ (SMNS), leg. HS 18.9.1971.
Islet of East Unia: 1 ♂, 1 ♀ (SMNS), leg. HS 18.9.1971.
Aegaean island of Sirina, southeast of Astipalea: 3 ♂♂, 3 ♀♀ (1 ♂ 1 ♀ coll. L.M., 2 ♂♂ 2 ♀♀ SMNS), leg. HS 12.9.1971.
Aegaean islet of Khamili, south of Astipalea: 1 ♀, 1 juv. (coll. L.M.), leg. HS 10.9.1971.
Aegaean islet of Sokhas, Zafrano-group south of Astipalea: 1 juv. (SMNS), leg HS 11.9.1971.
Aegaean island of Astipalea: Maltesana, 1 ♂, 1 juv. (SMNS), leg. HS 8.9.1971.
Santorini: Merovigli, in a house, 1 ♀ (coll. L.M.), leg. CS. Sept. 1978. – Cape Akrotiri, 1 ♀ (SMNS), leg. RK 14.5.1979.

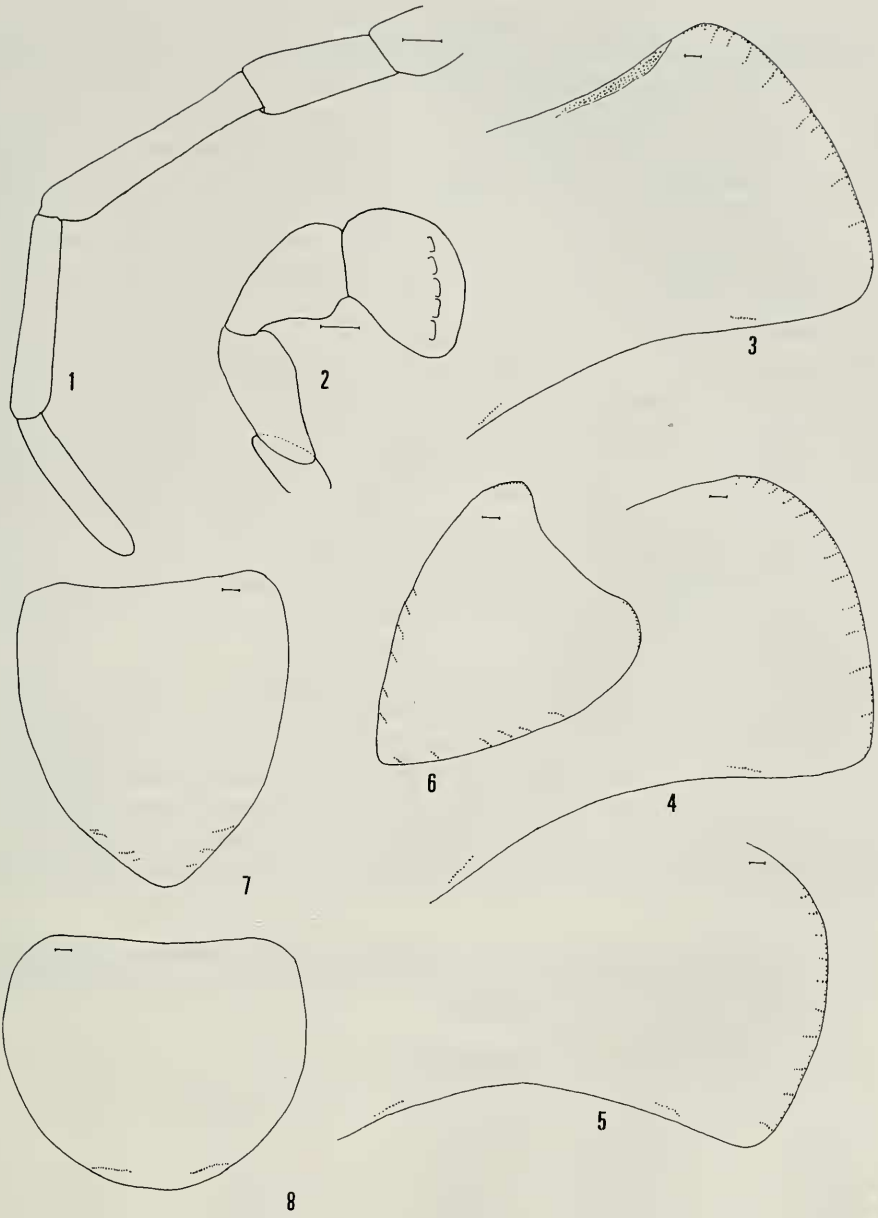
Description:

Dimensions: Body length 9.7 mm (♂), 12.6 mm (♀); thorax length 3.3 mm (♂), 4.2 mm (♀); thorax width 2.8 mm (♂), 3.3 mm (♀); maximum cercus length 6.2 mm; maximum length of antenna 7.6 mm; maximum total length (the terminal filament always damaged) 12.6 mm (♂), 16.4. mm (♀).

Coloration: Body whitish or yellowish white, the light violet-brown hypodermal pigment present only sometimes in the external margin of the coxa and femur of all legs, in the maxillary palps and in the anterior area of Xth urotergite; tibiae even less distinctly pigmented; terminal filaments ringed, the antennae uniformly light violet. Scale pattern unknown, the scales only one type, rounded and provided with very abundant thin rays. Macrochaetae almost hyaline.

Morphology: Head clearly wider than long, with the typical chaetotaxy. Compound eyes roundish, well developed, very dark. Antennae with the usual chaetotaxy, always damaged, probably not extending much beyond the hind limit of the thorax when entire. Mandibles and maxillae without special features. Maxillary palp (fig. 1) with the apical article 1/7 shorter than the penultimate, all three distal articles equally thin. Labial palp (fig. 2) with its last article ovoid, clearly wider than long and provided with 5 sensorial papillae arranged in a single row.

Pro-, meso- and metanotum devoid of pigment, their hind margins progressively concave. Pronotum (fig. 3) with 9 – 14 pairs of lateral bristle-combs, each with 3 – 7 macrochaetae, and with 1 + 1 posterior bristle-combs, each with 8 – 10 setae. Mesonotum (fig. 4) similar, with 12 – 13 pairs of lateral bristle-combs and 1 pair of posterior combs, the lateral ones with 2 – 7, the hind ones with 9 – 12 macrochaetae. Meta-



Figs. 1–8. *Ctenolepisma insulicola* **nov. spec.** – Fig. 1. Maxillary palp, – Fig. 2. Labial palp, – Fig. 3: Pronotum, – Fig. 4. Mesonotum, – Fig. 5. Metanotum, – Fig. 6. Prosternum, – Fig. 7. Mesosternum, – Fig. 8. Metasternum. – Scale: 0.1 mm.

notum (fig. 5) with 10 – 12 pairs of lateral and 1 pair of posterior bristle-combs, with 3 – 6 and 9 – 12 macrochaetae respectively. Trichobothrial areas in the typical position. Anterior trichobothrial area associated with the 6th – 8th lateral comb (when counted from the hind margin, always the 4th), the posterior one associated with the hindest bristle-comb; trichobothrium internal of the macrochaetae in the anterior area, between the most internal macrochaetae and the remaining ones in the posterior area. Anterior trichobothrial area of the mesonotum associated with the antepenultimate, the posterior area as part of the hindest bristle-comb; the trichobothrium is internal to the comb in the anterior area and external to the comb in the posterior area. Trichobothrial areas of the metanotum associated with the two last bristle-combs; trichobothrium of the anterior area external to the comb, that of the posterior area between the more internal of the macrochaetae and the remaining ones of the comb.

Prosternum (fig. 6) much longer than wide, pointed apically, provided with 6 pairs of bristle-combs each with 4 – 7 setae. Mesosternum (fig. 7) half-elyptical, only a little longer than wide at base, with 3 pairs of bristle-combs, the more anterior with 8 – 9, the median with 6 – 7 and the hind ones with 4 setae. Metasternum (fig. 8) rounded, shorter than wide at base, with only one pair of combs, each with 16 macrochaetae; distance between the combs a little wider than the width of each comb.

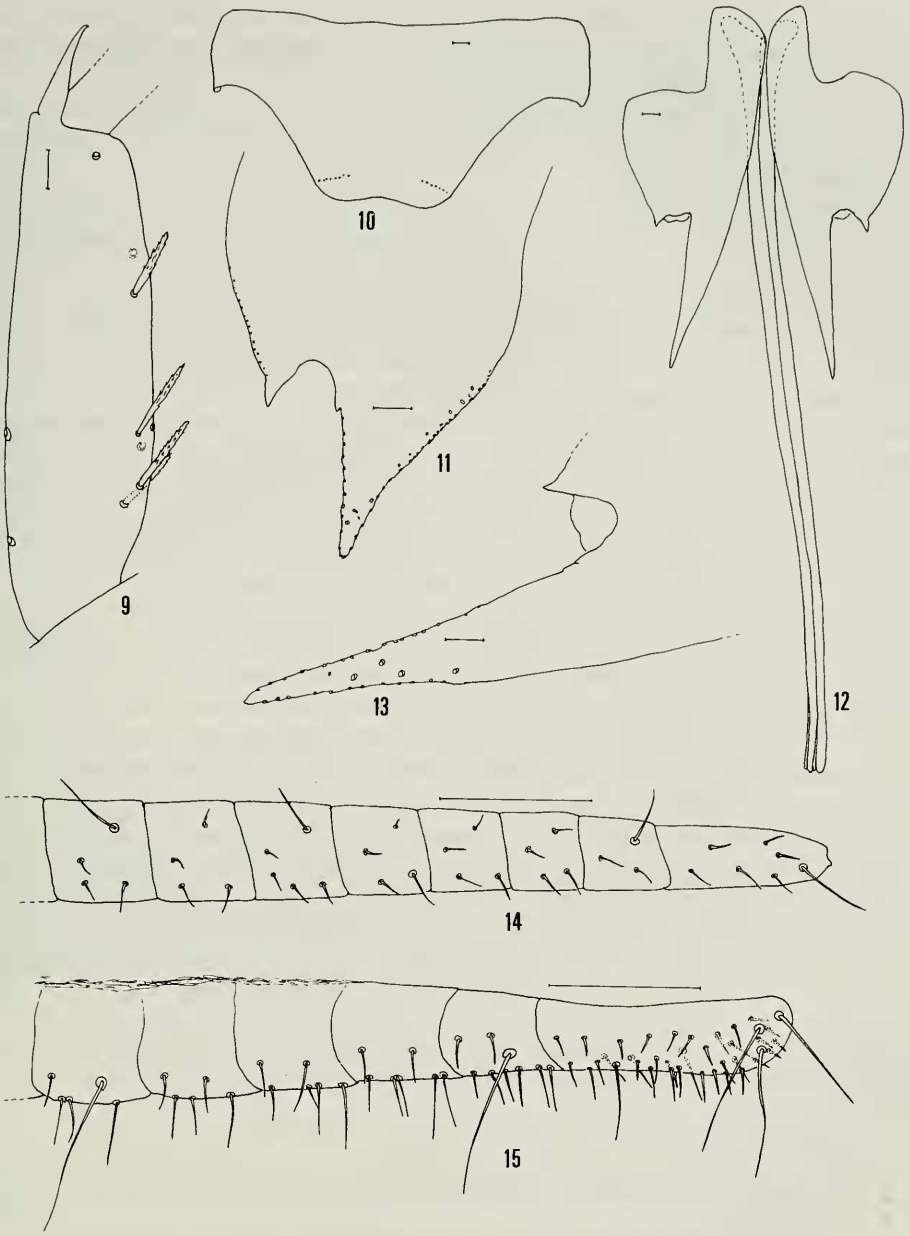
Legs without special features; tibia of hind leg (fig. 9) provided in both sexes with 2 dorsal-proximal and 7 ventral macrochaetae, the latter ones as long as, or a little longer, than half of the tibia diameter.

Urotergite I with 1 + 1 infralateral combs only; urotergites II – VII with 3 + 3, urotergite VIII with 2 + 2 bristle-combs. IXth urotergite bare. Xth urotergite trapezoidal (fig. 10), much shorter than the width of base (1/3 shorter than wide), with the apical margin clearly but not deeply concave. Distribution of the macrochaetae in the infralateral (A), lateral (B) and submedian (C) bristle-combs in the urotergites as in the following table. Urosternites I – II bare; urosternites III – VIII with 1 + 1 lateral bristle-combs, the distribution of the macrochaetae as in the following table; median bristle-comb absent.

Table 1. *Ctenolepisma insulicola* nov. spec. – Distribution of macrochaetae in the infralateral *(A)*, lateral *(B)*, and submedian *(C)* bristle-combs of the urotergites, and in the two lateral bristle-combs of the urosternites.

	urotergites			urosternites
	A	B	C	
I	7 – 9	–	–	–
II	8 – 12	7 – 9	9 – 11	–
III	9 – 12	8 – 9	7 – 10	20 – 23
IV	9 – 14	8 – 9	7 – 11	21 – 23
V	11 – 14	7 – 9	7 – 12	20 – 25
VI	10 – 15	8 – 9	8 – 11	21 – 23
VII	10 – 15	6 – 9	7 – 10	19 – 21
VIII	10 – 15	–	7 – 11	13 – 17
IX	–	–	–	–
X		7 to 10		

Abdominal styli in two pairs, in the VIIIth and IXth coxites in both sexes. Coxite IX of ♂ (fig. 11) with the inner process a little longer than wide at base (1/6 longer) and 3.5 – 4.0 times longer than the outer process; penis very well developed, typical. Co-



Figs. 9–15. *Ctenolepisma insulicola* **nov. spec.** – Fig. 9. Tibia III, distribution of the macrochaetae; – Fig. 10. Xth urotergite, – Fig. 11. IXth coxite of the ♂, – Fig. 12. IXth coxites of the ♀ and ovipositor, – Fig. 13. Ibid., detail of the inner and outer processes of the coxite; – Fig. 14. Anterior gonapophyses, distal articles; – Fig. 15. Posterior gonapophyses, distal articles. – Scale: 0.1 mm.

xite IX of ♀ (figs. 12 – 13) with the inner process very long and thin, 3 – 4 times longer than wide at base and 6 – 7 times longer than the outer process. Ovipositor very long (fig. 12), extending beyond the apex of the inner process of the IXth coxite for 2.0 – 2.5 times the length of this process. Anterior gonapophyses (fig. 14) with 45 – 50 articles, the posterior ones (fig. 15) with 50 – 55 articles, the latter ones fused along almost all their length.

Discussion: Among the known species of the „*lineata*-group" of *Ctenolepisma*, which lack the median bristle-comb in the urosternites, only *C. boettgerianum* Paclt, 1961 from India, *C. mauritanica* (Lucas, 1846) from USSR, western Asia and (?) Algeria, *C. alticola* Silvestri, 1935 from Caracorum and *C. dubitalis* Wygodzinsky, 1959 from the Lesser Antilles and the Cape-Verde-Islands share with the new species a trapezoidal Xth urotergite. This last species (Wygodzinsky 1959 and Mendes in press), provided with a very short secondary-type ovipositor with fossorial spines, is easily distinguishable from the new *C. insulicola* and occupies a very isolated position inside the genus. *C. boettgerianum* (Paclt 1961), which has only 3 sensorial papillae, is also quite different from the new species on account of the higher number of articles in the gonapophyses (70 versus 50 – 55), the lower number of the macrochaetae in the urotergites (3 – 4 in *boettgerianum*, 7 – 14 in *insulicola*) and in the urosternites (5 – 6 and 13 – 25 respectively) and also by the lower number of macrochaetae in the ventral surface of the hind tibia (only 2 in Paclts species, 7 in the new species). *C. mauritanica*, redescribed upon Russian specimens (Kaplin & Martinova 1976), shows a much more delicate (longer and thinner) body, and its thoracic sternites are clearly different from those in the Greek species (shape and chaetotaxy); furthermore the inner process of the IXth coxite particularly in the ♀ is much more shortened compared with that of the Aegaean species. *C. alticola* (Silvestri 1935) is the species that seems to share the greatest amount of characters with *insulicola* **nov. spec.**; however, its inner process of the IXth coxite is much shorter, the Xth urotergite longer in relation to its base width, and the apical article of the anterior gonapophyses is distinctly pointed; additionally, the dorsal surface of tibia III is provided with 3 strong macrochaetae. The new species shares also several characteristics with *C. longicaudata*, a species that has, however, only 2 + 2 bristle-combs on the VIIth urotergite, whose internal process of the IXth coxite of the ♀ is clearly shorter, and whose Xth urotergite is longer in relation to its base width; this cosmopolitan species has a weak hypodermal pigment or is completely devoid of pigment, and its urotergal and urosternal bristle-combs are provided with a smaller number of macrochaetae.

7. *Ctenolepisma lineata pilifera* (Lucas, 1840)

Aegaean islet of Mikro Zafrano, south of Astipalea, 1 ♀ (SMNS), leg. HS 11.9.1971.
Aegaean island of Sirina, southeast of Astipalea, 1 ♂ (SMNS), leg. HS 12.9.1971.
Aegaean islet of Stakidha, west of Karpathos, 1 ♂ (SMNS), leg. HS 13.9.1971.

Ctenolepisma lineata pilifera is widely distributed in xerothermic central Europe and in the mediterranean basin, and it has also been introduced in Australia and in the New World. The only published record from Greece concerns the specimens reported from Crete by Wygodzinsky (1958).

8. *Ctenolepisma michaelseni* Escherich, 1905 sensu Stach 1935

Santorini: Profitis Ilias, under pine-trees in formol-traps, 6 ♂♂, 6 ♀♀, 1 juv. (1 ♂, 1 ♀ coll. L.M., 5 ♂♂, 5 ♀♀, 1 juv SMNS), leg. MB et al. April 1978.

Ctenolepisma michaelseni, known from Algeria, Libya, Egypt, Sudan, Israel and Cyprus, has never been reported from Greece. The investigated specimens agree well with those studied from Algeria (Mendes 1980) and with Stachs (1935) redescription but are smaller (body length of ♂: 7.0 mm, of ♀: 6.8 – 7.0 mm) and have a lower number of macrochaetae in the tergal and sternal bristle-combs, as shown in table 2.

Table 2. *Ctenolepisma michaelseni.* – Distribution of macrochaetae in the bristle-combs of urotergites and urosternites (*A* = infralateral tergal, *B* = lateral tergal, *C* = submedian tergal, *L* = lateral sternal, *M* = median sternal).

	urotergites			urosternites	
	A	B	C	L	M
I	4	–	–	–	–
II	3 – 4	4	4 – 5	–	7 – 9
III	5	4 – 5	4	6 – 8	6 – 7
IV	5	2 – 4	4 – 5	8 – 9	6 – 8
V	3 – 6	4 – 5	4	8 – 9	6 – 7
VI	5 – 6	4 – 5	4 – 5	8 – 10	6 – 8
VII	6	–	5 – 6	8 – 10	–
VIII	5 – 6	–	4 – 6	7 – 9	–
IX	–	–	–	–	–
X		6 to 7			

9. *Ctenolepisma targionii* (Gr. & Rov., 1889)

Santorini: Merovigli, in a house, 1 juv. ♀ (SMNS), leg. CS Sept. 1978.

The single collected female, yet devoid of the VIIIth abdominal stylets, is 9.1 mm long; its characters agree well with those being diagnostic for the species. *Ctenolepisma targionii* is a mediterranean species already known from Portugal, Spain, Sardinia, Italy, Cyprus, Egypt, Israel and Turkey; the specimen from Santorini is the first record of the species from Greece.

10. *Lepisma saccharina* Linnaeus, 1758

Santorini: Kamari and Cape Akrotiri, 11 specimens (SMNS), leg. MB, BH, RK, MS, HS April 1978.
Santorini archipelago, islet of Palea Kaimeni: 5 ♂♂, 1 ♀ (SMNS), leg. MS, HS 10.5.1979.

This is the first record of the cosmopolitan and often synanthropic species from Greece.

11. *Asterolepisma balcanica* (Stach, 1922)

Santorini archipelago, islet of Palea Kaimeni: 1 ♀ (SMNS), leg. HS 10.5.1979.
Continental Greece, Mount Olympus: East of Karia, 1 ♂ (SMNS), leg. HS 2.6.1976.

Described upon Albanian specimens (Stach 1922), this species has further been reported from Bulgaria, Greece, Turkey, Sicily and (misidentification?) also from the Spanish Baleares islands. Greek records refer to the continental part only, i.e. Macedonia and Thessalia (Metéora) (Wygodzinsky 1958).

12. *Asterolepisma crassipes* (Escherich, 1905)

Lepisma soerenseni non Silvestri, Strebel 1937: 260, 264 (**nov. syn.**).
Santorini: Profitis Ilias, 2 juv. ♂♂, 1 ♀ (SMNS), leg. MS 9.5.1979.

The species has been noticed from Spain, France, Italy, Malta and the Pelagic Islands, and from Tunisia. So the specimens from Santorini are the first record for the eastern Mediterranean. However, Strebel (1937) signalizes *Lepisma soerenseni* Silvestri, 1908 from Greece, a species that is known only from northern Morocco (Silvestri 1908, Mendes 1980) and that seems to be a real western mediterranean endemism; the present record of *A. crassipes* from Santorini supports the suspicion that *A. crassipes* has been misidentified by Strebel as *L. soerenseni,* due to the great amount of similarities shared by these two species.

13. *Asterolepisma wasmanni* (Moniez, 1894)

Aegaean islet of Makro Zafrano, west of Karpathos: 1 ♂, 1 ♀ (SMNS), leg. HS 9.9.1971.

The species, which shows a great geographical variability and needs a careful revision, is known from the mediterranean basin and has been reported from Greece (ancient Faliro) by Wygodzinsky (1958).

Asterolepisma sp.

Santorini: Kamari, 1 juv. ♀ (SMNS), leg. HS 27.5.1976. – Perissa, 1 juv. (SMNS), leg. MB April 1978.
Aegaean island of Astipalea: Maltesana, 1 juv. ♂ (SMNS), leg. HS 8.9.1971.

14. *Thermobia aegyptiaca* (Lucas, 1840)

Santorini: Akrotiri, 2 ♀♀ (SMNS), leg. HS 27.5.1976. – Profitis Ilias, Akrotiri, Cape Akrotiri, 5 specimens (SMNS), leg. MB, BH, HS April 1978. – Mikros Ilias, Profitis Ilias, Cape Exomiti, 7 specimens (SMNS), leg. RK May 1979.
Santorini archipelago, islet of Nea Kaimeni: 1 ♂ (SMNS), leg. MS 2.4.1978.

Thermobia aegyptiaca is a widely distributed species in the eastern mediterranean countries and in northeastern Africa, signalized also from some places in tropical Africa where it must have been introduced. Greek records: Crete (Wygodzinsky 1958), Peloponnes (Leonidhio: Strebel 1937, Akrokorinthos: Mendes 1980).

Family Ateluridae

15. *Proatelura pseudolepisma* (Grassi, 1887)

Santorini: Mikros Ilias, 1 ♂ (SMNS), leg. MB April 1978.

Proatelura pseudolepisma is a peri-mediterranean species, found from Portugal and Morocco to Turkey. In Greece it has been recorded from the Ionian island of Corfu (Silvestri 1908), from Leonidhio on the east coast of the Peloponnes (Strebel 1937) and from Thessalia and Crete (Wygodzinsky 1958).

Table 3. Records of Microcoryphia and Zygentoma on the Santorini archipelago.

	Santorini main island	Palea Kaimeni	Nea Kaimeni
Order Microcoryphia			
Family Machilidae:			
Lepismachilis handschini	×		
Silvestrichilis uncinata	×		
Order Zygentoma			
Family Lepismatidae:			
Allacrotelsa kraepelini	×		
Ctenolepisma ciliata	×		
Ctenolepisma insulicola	×		
Ctenolepisma michaelseni	×		
Ctenolepisma targionii	×		
Lepisma saccharina	×	×	
Asterolepisma balcanica		×	
Asterolepisma crassipes	×		
Thermobia aegyptiaca	×		×
Family Ateluridae:			
Proatelura pseudolepisma	×		

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Author's adress:

Dr. LUIS F. MENDES, Departamento de Zoologia e Antropologia, Faculdade de Ciências de Lisboa, R. Escola Politécnica, 58, P-1200 Lisboa (Portugal).

Gesamtherstellung: Verlagsdruckerei Schmidt GmbH, D-8530 Neustadt a. d. Aisch